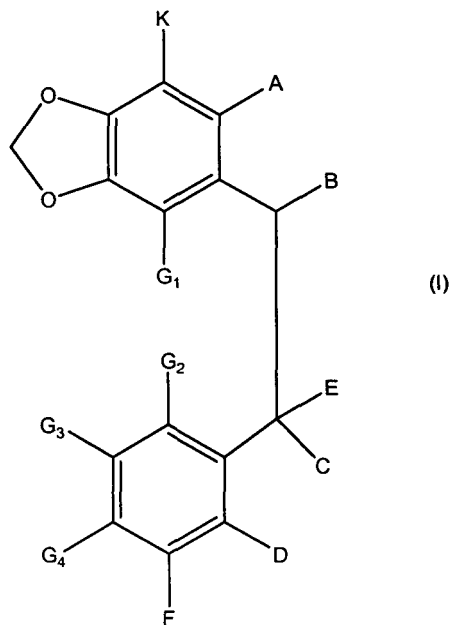
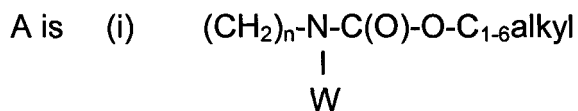


IN THE CLAIMS:

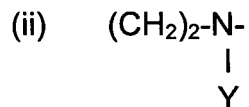
1. (Original) A compound of formula (I):



wherein:

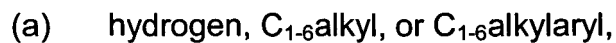


in which W is $\text{C}_{1-6}\text{alkyl}$ or $\text{C}_{1-6}\text{alkylaryl}$ and $n=0, 1$, or 2 , or



and forms a nitrogen-containing heterocycloalkyl ring with B,

in which Y is:



- (b) $-\text{C}(\text{O})-\text{C}_{1-6}\text{alkyl}$ or $-\text{C}(\text{O})-\text{C}_{1-6}\text{alkylaryl}$,
- (c) $-\text{CH}_2-\text{CH}(\text{OH})-\text{CH}_2-\text{Z}$, where Z is $\text{C}_{1-6}\text{alkyl}$ or $-\text{O}-\text{C}_{1-6}\text{alkyl}$,
- (d) aryl, or
- (e) heteroaryl;

B is $-\text{OH}$, halogen, or a single bond that forms a six-membered heterocycloalkyl ring with A;

C is hydrogen, $\text{C}_{1-6}\text{alkyl}$, or halogen;

- D is
- (i) $-\text{CH}_2\text{-halogen}$, $-\text{CH}(\text{O})$, $-\text{COOH}$, $-\text{C}(\text{O})-\text{O}-\text{C}_{1-6}\text{alkyl}$, $-\text{C}(\text{O})-\text{O}-\text{C}_{1-6}\text{alkylaryl}$, $-\text{CH}_2\text{OH}$, or $-(\text{CH}_2)_n-\text{CH}_3$, wherein n is 1, 2, or 3, or
 - (ii) together with E forms a five- or six-membered cycloalkyl or heterocycloalkyl ring;

E is $-\text{OH}$ or $\text{C}_{1-6}\text{alkyl}$, or together with D forms a five- or six-membered cycloalkyl or heterocycloalkyl ring, wherein this heterocycloalkyl ring contains $-\text{C}(\text{O})\text{O}-$, $-\text{C}(\text{O})\text{NH}-$, $-\text{C}(\text{S})\text{O}-$, or $-\text{C}(\text{S})\text{NH}-$;

F is hydrogen, $-\text{O}-\text{C}_{1-6}\text{alkyl}$, $-\text{O}-\text{C}_{1-6}\text{alkylaryl}$, $-\text{O}-\text{C}_{1-6}\text{alkylheteroaryl}$, halogen, aryl, $\text{C}_{1-6}\text{alkyl}$, $-\text{SH}$, thio- $\text{C}_{1-6}\text{alkyl}$, $-\text{S-aryl}$, $-\text{O}-\text{SO}_2-\text{C}_{1-6}\text{alkyl}$, $-\text{O}-\text{SO}_2-\text{C}_{1-6}\text{alkylaryl}$, cyano, or NR_1R_2 , where R_1 and R_2 are independently hydrogen, $\text{C}_{1-6}\text{alkyl}$, $\text{C}_{1-6}\text{alkylaryl}$, cyano, aryl, heteroaryl, $-\text{SO}_2-\text{C}_{1-6}\text{alkyl}$, or $-\text{SO}_2-\text{N}(\text{C}_{1-6}\text{alkyl})(\text{C}_{1-6}\text{alkyl})$;

G_1 to G_4 independently represent hydrogen, aryl, halogen, $\text{C}_{1-6}\text{alkyl}$, hydroxyl, $-\text{S}-\text{C}_{1-6}\text{alkyl}$, nitro, $-\text{O}-\text{C}_{1-6}\text{alkyl}$, $-\text{O}-\text{C}_{1-6}\text{alkylaryl}$, or $-(\text{CH}_2)_x\text{NR}_1\text{R}_2$, where x is 0, 1, or 2 and where

R1 and R2 are independently hydrogen, C₁₋₆alkyl, C₁₋₆alkylaryl, cyano, aryl, heteroaryl, or acyl, or

two adjacent G₂ to G₄ groups together comprise an alkylene $-(CH_2)_m-$, where m is 3 or 4, to form a cycloalkyl ring, or together comprise an alkylene dioxy $-O-(CH_2)_n-O-$, where n is 1, 2, or 3, to form a heterocycloalkyl ring; and

K is C₁₋₆alkyl, halogen, cyano, aryl, hydrogen, hydroxyl, thio-C₁₋₆alkyl, sulfonyl, sulfoxyl, nitro, -O-C₁₋₆alkyl, -O-C₁₋₆alkylaryl, or NR₁R₂, where R₁ and R₂ are independently hydrogen, C₁₋₆alkyl, C₁₋₆alkylaryl, cyano, aryl, heteroaryl, or acyl;

wherein one or more of said alkyl, aryl, heteroaryl, cycloalkyl, heterocycloalkyl, and alkylaryl groups are optionally substituted with one or more suitable substituents; a salt thereof, a solvate thereof, a solvated salt thereof, or a combination of two or more thereof;

provided that when A is $-(CH_2)_2-N(Y)-$ and forms a nitrogen-containing heterocycloalkyl ring with B, and D together with E forms an unsubstituted five-membered heterocycloalkyl ring that contains $-C(O)O-$, then:

- (i) F is not unsubstituted -O-C₁₋₆alkyl or dialkylamino-substituted -O-C₁₋₆alkyl when G₁ is hydrogen, hydroxyl, or unsubstituted -O-C₁₋₆alkyl, G₂ is hydrogen, halogen, or a nitrogen-containing radical, G₃ is hydrogen, G₄ is hydroxyl or unsubstituted -O-C₁₋₆alkyl, and Y is hydrogen, unsubstituted C₁₋₆alkyl, oxo-substituted C₁₋₆alkyl,

thiocarbamoyl-substituted C₁₋₆alkyl, hydroxy-substituted C₁₋₆alkyl, or heteroaryl,

(ii) F is not -NO₂ or NR₁R₂ where R₁ and R₂ are both hydrogen or the same oxo-substituted C₁₋₆alkyl (a) when at least three of G₁, G₂, G₃, and G₄ are the same unsubstituted -O-C₁₋₆alkyl or (b) when G₂ is -NO₂, and

(iii) F is not hydrogen (a) when G₂, G₃, and G₄ are all hydrogen or (b) when G₂ and G₃ or G₃ and G₄ together comprise a methylenedioxy or (c) when at least two of G₂, G₃, and G₄ are unsubstituted -O-C₁₋₆alkyl or (d) when G₁ is unsubstituted -O-C₁₋₆alkyl and G₄ is a nitrogen-containing radical or halogen.

2. (Original) The compound of claim 1, wherein A is --(CH₂)₂-N(Y)-- and forms a nitrogen-containing heterocycloalkyl ring with B.

3. (Original) The compound of claim 2, wherein Y is hydrogen, C₁₋₆alkyl, or C₁₋₆alkylaryl.

4. (Original) The compound of claim 1, wherein D together with E forms a substituted or unsubstituted five- or six-membered heterocycloalkyl ring that contains --C(O)O-, -C(O)NH-, -C(S)O-, or -C(S)NH-.

5. (Original) The compound of claim 1, wherein D together with E forms a five-membered heterocycloalkyl ring that contains --C(O)O-.
6. (Original) The compound of claim 1, wherein A is --(CH₂)₂-N(Y)-- and forms a nitrogen-containing heterocycloalkyl ring with B, and D together with E forms a substituted or unsubstituted five- or six-membered heterocycloalkyl ring that contains --C(O)O-, -C(O)NH-, -C(S)O-, or -C(S)NH-.
7. (Original) The compound of claim 1, wherein A is --(CH₂)₂-N(Y)-- and forms a nitrogen-containing heterocycloalkyl ring with B, and D together with E forms a five-membered heterocycloalkyl ring that contains --C(O)O-.
8. (Original) The compound of claim 6 or 7, wherein Y is hydrogen, C₁₋₆alkyl, or C₁₋₆alkylaryl.
9. (Original) The compound of claim 1, 6, or 7, wherein K is hydrogen.
10. (Original) The compound of claim 1, 6, or 7, wherein G₁ to G₄ each independently represents hydrogen or -O-C₁₋₆alkyl.

11. (Original) The compound of claim 6 or 7, wherein said compound is present as a racemic mixture.

12. (Original) The compound of claim 11, wherein one isomer of said compound is present in an amount greater than 50% of said racemic mixture.

13. (Original) The compound of claim 11, wherein one isomer of said compound is present in an amount greater than 75% of said racemic mixture.

14. (Original) The compound of claim 11, wherein one isomer of said compound is present in an amount greater than 90% of said racemic mixture.

15. (Original) A pharmaceutical composition comprising a pharmaceutically effective amount of a compound of claim 1 and a pharmaceutically acceptable carrier.

Claims 16-25 (Cancelled)

26. (Original) A method of inhibiting mitosis, comprising contacting a cell with an effective amount of a compound of claim 1.

Claims 27-35 (Cancelled)

36. (Original) A method of inducing apoptosis, comprising contacting a cell with an effective amount of a compound of claim 1.

Claims 37-45 (Cancelled)

46. A method of inhibiting cell cycle, comprising contacting a cell with an effective amount of a compound of claim 1.

Claims 47-55 (Cancelled)

56. (Original) A method of inhibiting cell division, comprising contacting a cell with an effective amount of a compound of claim 1.

Claims 57-65 (Cancelled)

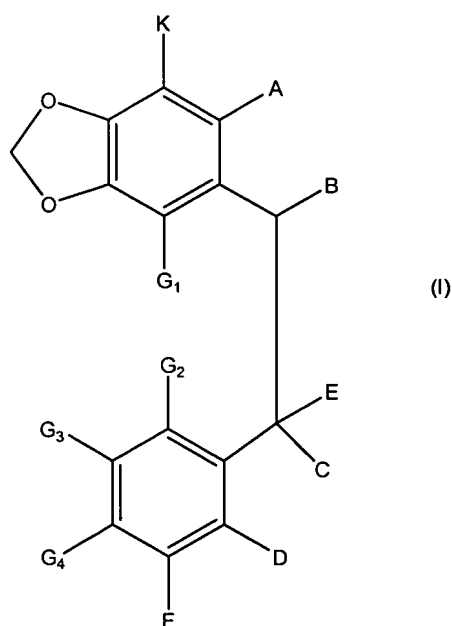
66. (Original) A method of arresting cells in S-phase, comprising contacting a cell with an effective amount of a compound of claim 1.

Claims 67-75 (Cancelled)

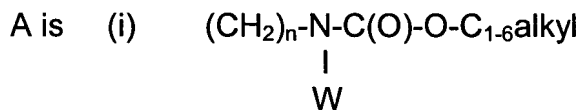
76. (Original) A method of arresting cells in G2/M, comprising contacting a cell with an effective amount of a compound of claim 1.

Claims 77-119 (Cancelled)

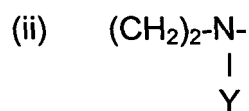
120. (Original) A method of treating cancer comprising administering to a mammal in need thereof an effective amount of a compound of formula (I):



wherein:



in which W is C₁₋₆alkyl or C₁₋₆alkylaryl and n=0, 1, or 2, or



and forms a nitrogen-containing heterocycloalkyl ring with B,

in which Y is:

- (a) hydrogen, C₁₋₆alkyl, or C₁₋₆alkylaryl,
- (b) -C(O)-C₁₋₆alkyl or -C(O)-C₁₋₆alkylaryl,
- (c) -CH₂-CH(OH)-CH₂-Z, where Z is C₁₋₆alkyl or -O-C₁₋₆alkyl,
- (d) aryl, or
- (e) heteroaryl;

B is -OH, halogen, or a single bond that forms a six-membered heterocycloalkyl ring with A;

C is hydrogen, C₁₋₆alkyl, or halogen;

D is (i) -CH₂-halogen, -CH(O), -COOH, -C(O)-O-C₁₋₆alkyl, -C(O)-O-C₁₋₆alkylaryl, -CH₂OH, or -(CH₂)_n-CH₃, wherein n is 1, 2, or 3, or

(ii) together with E forms a five- or six-membered cycloalkyl or heterocycloalkyl ring;

E is -OH or C₁₋₆alkyl, or together with D forms a five- or six-membered cycloalkyl or heterocycloalkyl ring, wherein this heterocycloalkyl ring contains -C(O)O-, -C(O)NH-, -C(S)O-, or -C(S)NH-;

F is hydrogen, -O-C₁₋₆alkyl, -O-C₁₋₆alkylaryl, -O-C₁₋₆alkylheteroaryl, halogen, aryl, C₁₋₆alkyl, -SH, thio-C₁₋₆alkyl, -S-aryl, -O-SO₂-C₁₋₆alkyl, -O-SO₂-C₁₋₆alkylaryl, cyano, or NR₁R₂, where R₁ and R₂ are independently hydrogen, C₁₋₆alkyl, C₁₋₆alkylaryl, cyano, aryl, heteroaryl, -SO₂-C₁₋₆alkyl, or -SO₂-N(C₁₋₆alkyl)(C₁₋₆alkyl);

G₁ to G₄ independently represent hydrogen, aryl, halogen, C₁₋₆alkyl, hydroxyl, -S-C₁₋₆alkyl, nitro, -O-C₁₋₆alkyl, -O-C₁₋₆alkylaryl, or -(CH₂)_xNR₁R₂, where x is 0, 1, or 2 and where R₁ and R₂ are independently hydrogen, C₁₋₆alkyl, C₁₋₆alkylaryl, cyano, aryl, heteroaryl, or acyl, or

two adjacent G₂ to G₄ groups together comprise an alkylene -(CH₂)_m-, where m is 3 or 4, to form a cycloalkyl ring, or together comprise an alkylene dioxy -O-(CH₂)_n-O-, where n is 1, 2, or 3, to form a heterocycloalkyl ring; and

K is C₁₋₆alkyl, halogen, cyano, aryl, hydrogen, hydroxyl, thio-C₁₋₆alkyl, sulfonyl, sulfoxyl, nitro, -O-C₁₋₆alkyl, -O-C₁₋₆alkylaryl, or NR₁R₂, where R₁ and R₂ are independently hydrogen, C₁₋₆alkyl, C₁₋₆alkylaryl, cyano, aryl, heteroaryl, or acyl;

wherein one or more of said alkyl, aryl, heteroaryl, cycloalkyl, heterocycloalkyl, and alkylaryl groups are optionally substituted with one or more suitable substituents;

a pharmaceutically acceptable salt thereof, a pharmaceutically acceptable solvate thereof,

a pharmaceutically acceptable prodrug thereof, a pharmaceutically acceptable solvated salt thereof, a pharmaceutically acceptable solvated prodrug thereof, a pharmaceutically acceptable salt of a prodrug thereof, or a combination of two or more thereof;

provided that when A is $--(CH_2)_2-N(Y)--$ and forms a nitrogen-containing heterocycloalkyl ring with B, and D together with E forms an unsubstituted five-membered heterocycloalkyl ring that contains $--C(O)O-$, then:

- (i) F is not unsubstituted $-O-C_{1-6}alkyl$ when G_1 and G_4 are the same unsubstituted $-O-C_{1-6}alkyl$ and Y is unsubstituted $C_{1-6}alkyl$, carbamoyl-substituted $C_{1-6}alkyl$, thiocarbamoyl-substituted $C_{1-6}alkyl$, hydroxy-substituted $C_{1-6}alkyl$, or heteroaryl, and
- (ii) F is not unsubstituted $-O-C_{1-6}alkyl$ when G_1 is unsubstituted $-O-C_{1-6}alkyl$, G_4 is hydroxyl, and Y is unsubstituted $C_{1-6}alkyl$.

Claims 121 -132 (Cancelled)